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INTERNATIONAL ECONOMIC SCOREBOARD

THE CONFERENCE BOARD

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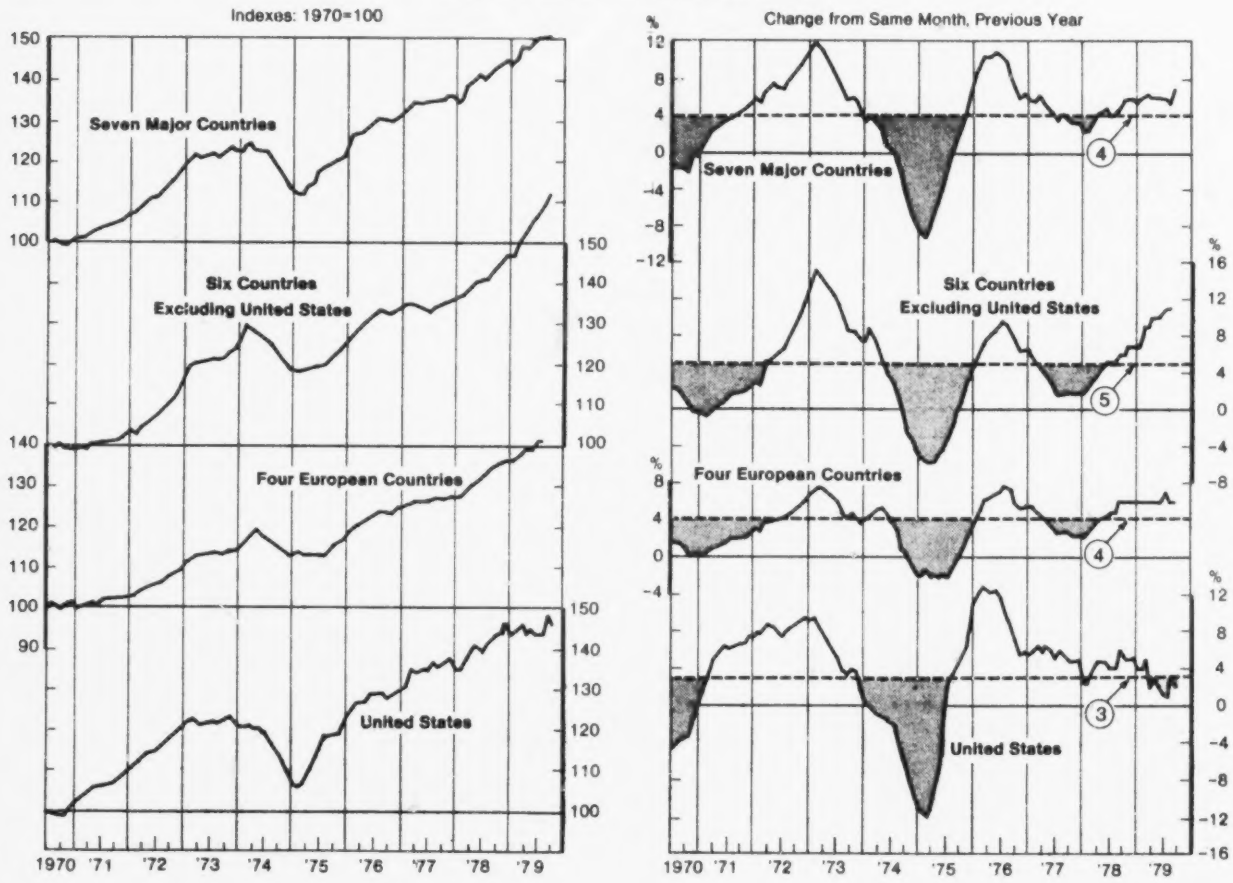
The leading indexes for Canada, West Germany, France and Japan continued to put in a vigorous performance through the latest month (August or September). In each of those countries the indexes reached new highs. The leading indexes for the United Kingdom and Italy have leveled off in the last few months, but are still 4 percent above their year-earlier levels. The U.S. index rebounded in September, largely because of the extraordinary bulge in consumer credit, which in turn was connected with the temporary surge in auto sales. In October the U.S. index declined, and its trend over the past year has been flatter than in any of the other six countries.

As of the early autumn, therefore, these anticipatory indicators were saying the U.S. slowdown is continuing while the recovery abroad, for the most part, remains strong. As explained in more detail below, this probably means good growth in industrial production in Europe and Japan, which should generate healthy markets for U.S. exports.

Leading Business Cycle Indexes


Indexes: 1970=100
Change from Same Month, Previous Year
Seven Major Countries
Six Countries Excluding United States
Four European Countries
United States
1970 '71 '72 '73 '74 '75 '76 '77 '78 '79

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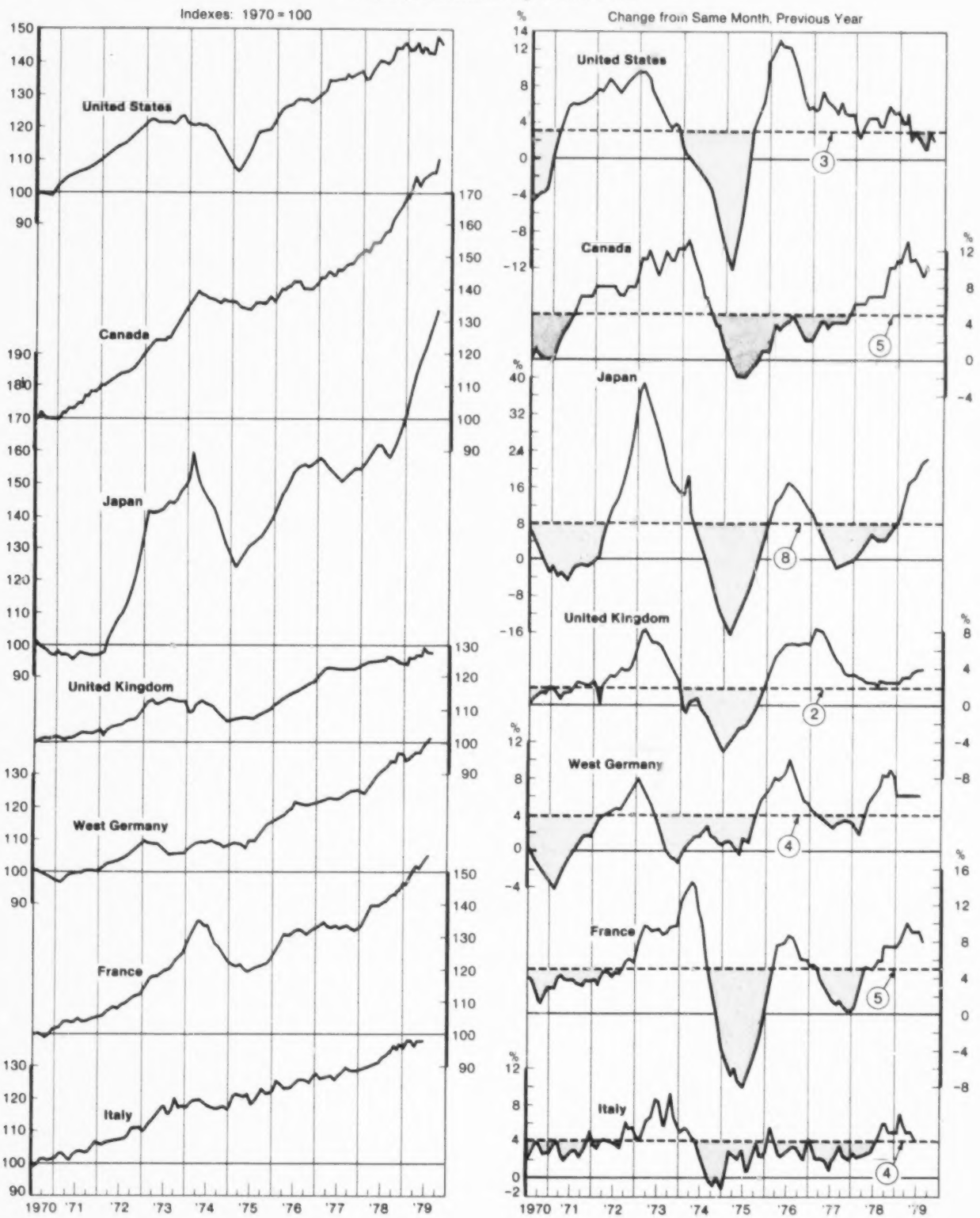
Leading Business Cycle Indexes



Note: For explanation, see back page.

The Leading Indicators and Industrial Production

One of the most widely used economic indicators around the world is the index of industrial production. Many countries that do not have quarterly estimates of gross national product have monthly figures on industrial production. Covering manufacturing and mining, and often utilities and construction activity, the index pertains to the cyclically sensitive sector of the economy. Unlike GNP, it measures the physical volume of output directly, requiring no deflation to allow for price changes.

In the United States the index of industrial production, originally constructed in the early 1920's by the Federal Reserve Board and still maintained by the Fed, has long been used as one of the variables considered in determining when a business cycle peak or trough has been reached. In West Germany the Bundesbank relies upon industrial production to derive a chronology of business cycles. The United Kingdom and Japan also use the index, together with other indicators, in their cycle chronologies. Another common use for the index is to measure the demand for imports—or for exports from another country. Not only are imported materials, fuels and machines used directly in manufacturing, power production and construction, but the industrial output of a nation creates income that can be used to buy imported goods like automobiles or foods.

In view of this wide interest we have recently completed a brief study comparing the leading indexes reported here with the industrial production indexes for each of the seven countries. Looking at growth rates over twelve-month spans in both indexes, we find clear cyclical movements in every country. In every country also the turns in the leading index growth rates usually precede those in industrial production. In fact, leads outnumber lags by nearly four to one. The average lead-time for all seven countries is three months. Moreover, the turns in the leading indexes are usually easier to recognize, because there are fewer erratic movements in these indexes than in industrial production.

Simply as a guide to the current trend in industrial production, therefore, the leading indexes have much to contribute. It is a fairly safe rule that when the leading index begins to rise faster, industrial production will soon begin to rise faster too. When the leading index begins to rise more slowly or decline, industrial production is likely to follow suit shortly thereafter.

For example, for the six countries excluding the United States the 12-month growth rate in the composite leading index reached a peak in February 1973, at 15 percent. The composite industrial production index for the same six countries, compiled by the U.S. Department of Commerce, reached its peak rate, 11 percent, three months later, in May 1973. Both growth rates declined almost continuously for the next two

Leading Indexes, Seven Countries, 1979

	U.S.	Canada	Japan	U.K.	West Germany	France	Italy	7 Countries	6 Countries ex. U.S.	4 Countries, Europe
					Indexes, 1970 = 100					
Jan. 79	144	169	172	124	135	146	136	146	148	136
Feb. 79	145	171	177	126	135	148	138	147	150	137
Mar. 79	146	174	181	126	136	150	138	149	152	138
Apr. 79	144	172	186	127	137	152	137	148	153	139
May 79	145	174	189	127	137	151	138	149	155	139
June 79	144	175	192	129	139	153	138	150	156	140
July 79	144	176	196	128	140	154	138	150	158	141
Aug. 79	144	176	199	128	141	155		151	159	141
Sept. 79	148	180	204					154	162	
Oct. 79	146									
					Percent Change from Preceding Year					
Jan. 79	4	11	10	1	7	8	5	5	7	6
Feb. 79	4	12	12	2	7	8	7	6	9	6
Mar. 79	5	12	14	2	7	9	6	7	9	6
Apr. 79	2	11	17	2	7	10	5	6	10	6
May 79	3	11	18	3	7	9	5	6	10	6
June 79	2	10	19	4	7	9	5	6	10	7
July 79	1	10	21	4	7	9	4	6	11	6
Aug. 79	1	9	21	4	7	8		5	11	6
Sept. 79	3	10	23					7	12	
Oct. 79	2									
					Ten-Year Annual Growth Rate, Percent					
1966-76	3	5	8	2	4	5	4	4	5	4

years, with the leading index hitting its low (-6 percent) in March, and industrial production (-11 percent) in May. The ensuing upswing was interrupted for about a year in 1976-77. The leading index growth rate dropped from 10 percent in July 1976 to 2 percent in July 1977, while the production rate dropped from 9 percent in September 1976 to zero in October 1977. Since then the growth rates of both indexes have been rising. The latest figures are 12 percent for the leading index in September and 5 percent for industrial production in August.

The economic basis for this relationship is that the components of the leading index represent actions of an anticipatory nature that are especially sensitive to changes in cost and profit prospects and the state of demand. New orders for equipment, contracts placed for construction work, and housing starts are obvious examples. The length of the average workweek is one of the first adjustments made when manufacturers detect a shift in demand and reduce or increase overtime work or the number of part-time employees. By combining a dozen or so of such measures into a single index, the idiosynchrasies of any single one of them are mutued, and the result is a leading index possessing the properties described. These properties do not make it an infallible instrument for appraising the outlook in any country. But when a businessman judges the future of his company, he does not regard the current state of his orderbooks as an infallible guide either. That does not stop him from wanting to know what state they are in. It is the same with the leading indexes.

THE INTERNATIONAL ECONOMIC INDICATOR (IEI) SYSTEM

This bimonthly Conference Board report on the business outlook in seven major industrial countries is based on an analytical system of leading, coincident and lagging indicators, first developed in the 1930's by the National Bureau of Economic Research, which has become widely used in the United States to appraise the state of the business cycle. Since 1961 U.S. figures for these indicators have been published monthly by the U.S. Department of Commerce in *Business Conditions Digest*. Similar systems have been developed in Canada, Japan, the United Kingdom and a few other countries, but because of differences in content or methodology the results are not closely comparable. In an effort to establish greater comparability and broaden the coverage, a new set of indicators for seven major industrial countries was recently developed by Geoffrey H. Moore of the NBER and Philip A. Klein of Pennsylvania State University. They are being kept up to date, analyzed, and circulated to subscribers by the Center for International Business Cycle Research at Rutgers University in Newark, New Jersery.

The leading indexes shown here are composites based on a total of some 65 indicators that usually anticipate changes in national output or employment by several months. New orders, contracts for construction, corporate profits, stock prices, new business enterprises or business failures, and changes in consumer debt are among the indicators included for each country whenever available. (The U.S. leading index used here differs somewhat in composition from the index reported monthly by the U.S. Department of Commerce.) Experience has demonstrated that these indicators are helpful in tracking an economic recession or recovery, in revealing factors that are retarding expansion or leading to recession, in anticipating changes in foreign trade flows, and in providing early warning of new inflationary trends. To facilitate analysis the indexes shown in the charts are adjusted so that their long-run growth rates are equal to those in real GNP in the country concerned during 1966-76 (shown at the bottom of the table and by horizontal lines on the charts; the growth rate for each index is encircled on the chart).

For More Information

To find out more about this indicator system and its uses, and about the availability of the current data, please address inquiries to

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